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THE ROCKEFELLER UNIVERSITY HOSPITAL
1230 YORK AVENUE · NEW YORK, N.Y. 10021

PHYSICIAN-IN-CHIEF

12 May 1982

Dr. Joshua Lederberg
President
The Rockefeller University

Dear Josh:

Ann called and requested 3 copies of the PNAS paper on tin-heme; I am also enclosing copies of another short paper on this subject which we have just sent out for review. The second paper reports the lowest dose of tin-heme which is effective in blocking neonatal jaundice in rats and examines the possibility that zinc-heme, which is found in high concentrations in the red cells of lead poisoned individuals, might also be able to suppress neonatal hyperbilirubinemia. It does not do so.

We have received an IND exemption from the FDA for the use of tin-heme in normal and jaundiced adults and now have clinical studies on this work underway. We have unreported data in mice with congenital, profound hemolytic anemias (i.e. red cell mass turnover approximately 1-1/2 days compared with a normal of approximately 60 days) showing that weekly treatment with tin-heme will completely suppress the jaundice associated with such anemias. We think that this treatment may also prevent the production of bilirubin stones in such animals. It may be useful to treat children with congenital hemolytic anemias (i.e. thalassemias, sickle cell disease) with tin-heme in order to suppress jaundice and, more importantly, bile pigment stone formation in them.

I had not been sanguine about the possibility of bringing to human newborns the possible use of this metalloporphyrin for preventing excessive hyperbilirubinemia - thinking that it would be extremely difficult to persuade neonatalogists to try a new therapy for this condition. However, in the last several months Dr. Avery at Children's Medical Center, Boston; Dr. New at Cornell and Dr. Driscoll, Head of the Neonatalogy Unit at Columbia P&S, all have asked to have the chance to start a clinical trial with the compound. So I guess the problem of introducing a new drug in this clinical situation may be less than I thought. Once we have finished our adult studies, probably in the Fall, we will go back to the FDA with one or more of these pediatric groups and try to secure a license for a clinical trial in human neonates.

Yours sincerely,

Attallah Kappas, M.D.

Encl.